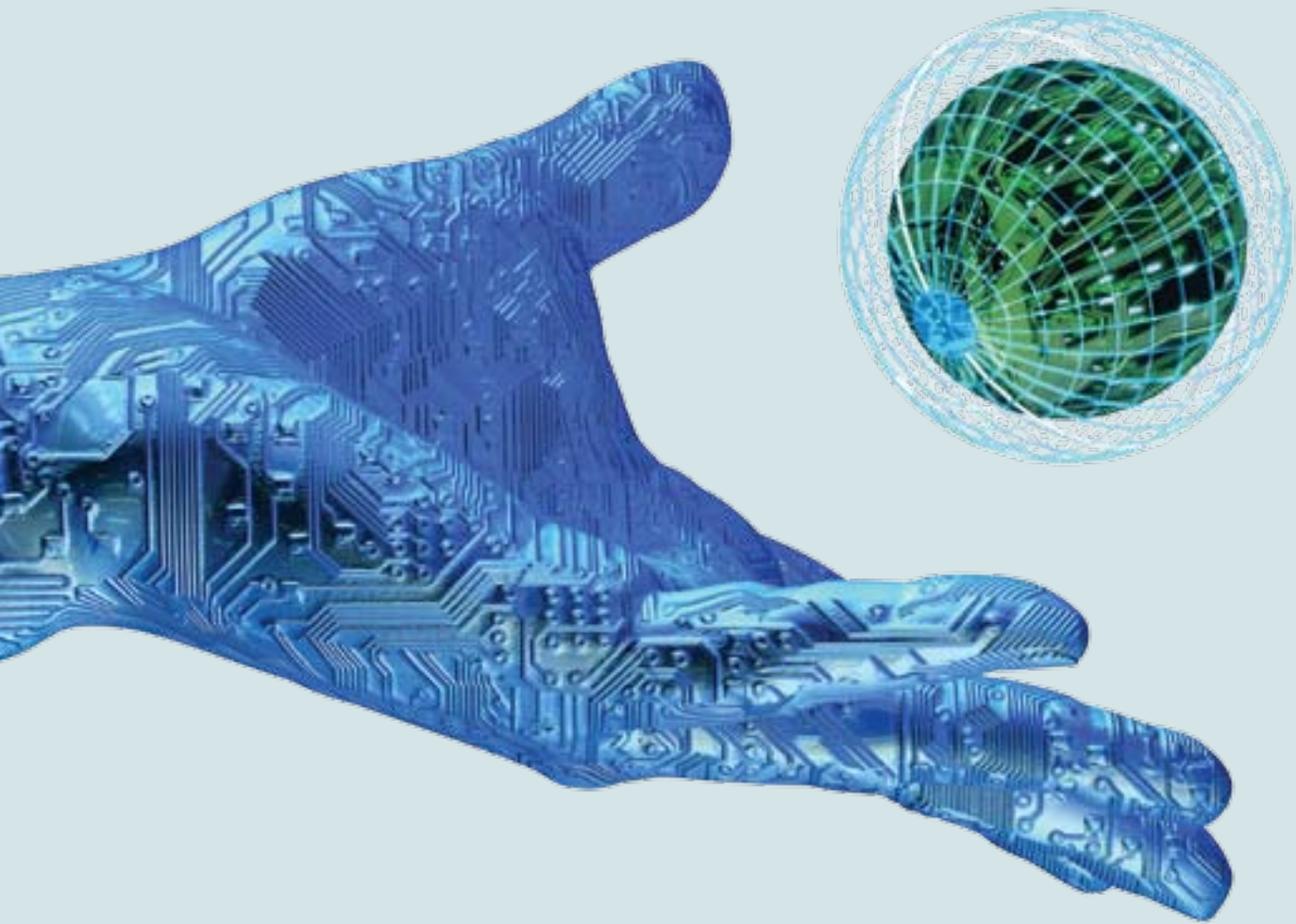


TECHNOLOGY INTEGRATION

What Happens Now?

As changes in federal funding spell the end of the network of Regional Technology in Education Consortia, staff members of the Advanced Learning Technologies project at the University of Kansas Center for Research on Learning discuss resources left in R*TEC's wake.



By Linda Merillat, Jennifer Holvoet, and Doug Adams

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In the last decade our society has become infused with technology. Two-thirds of the population in the United States is connected to the Internet, media players are a must-have, and cell phones are ubiquitous. As technology continues to permeate every facet of our lives, schools are left with the challenge of determining whether and how best to integrate this ever-changing landscape into their classrooms. In the past, federal funds were earmarked for this purpose. As a result, a wealth of professional development and technical assistance opportunities as well as services and resources were developed and made available to help schools with their integration efforts. These included a nationwide initiative called R*TEC. (See The Evolution of R*TEC on page 22). Today, federal funding has been shifted to other priorities, and the professional development and tech-

nical assistance the R*TECs once provided are no longer supported.

However, many of the resources developed during that period are still available and can be a great asset to anyone struggling to integrate technology into their classrooms. In several instances, the parent organization that managed the R*TEC program was also awarded the Regional Comprehensive Center for their geographical area. Many of the Web sites for each R*TEC are still available, and there are no immediate plans to stop hosting the sites. An easy way to find one of the more than 200 R*TEC resources that meets your specific needs is through the search and index features at <http://www.rtec.org>.

This article offers a sampling of some of the great resources still available for integrating technology into the classroom. Listed first are resources related to teaching and learning, followed by resources related to planning and evaluation.

Teaching and Learning Resources



4Teachers.org

4Teachers.org, which is hosted by ALTEC, works to help teachers integrate technology into their classrooms by offering free online tools and resources. The site's very popular tools include TrackStar, QuizStar, and RubiStar, which can be used to create ready-to-use Web lessons, quizzes, and rubrics. Tools especially for students include Web Worksheet Wizard for making and posting a Web page in minutes, and NoteStar, which assists students with collecting group notes and citations for papers. <http://www.4teachers.org>



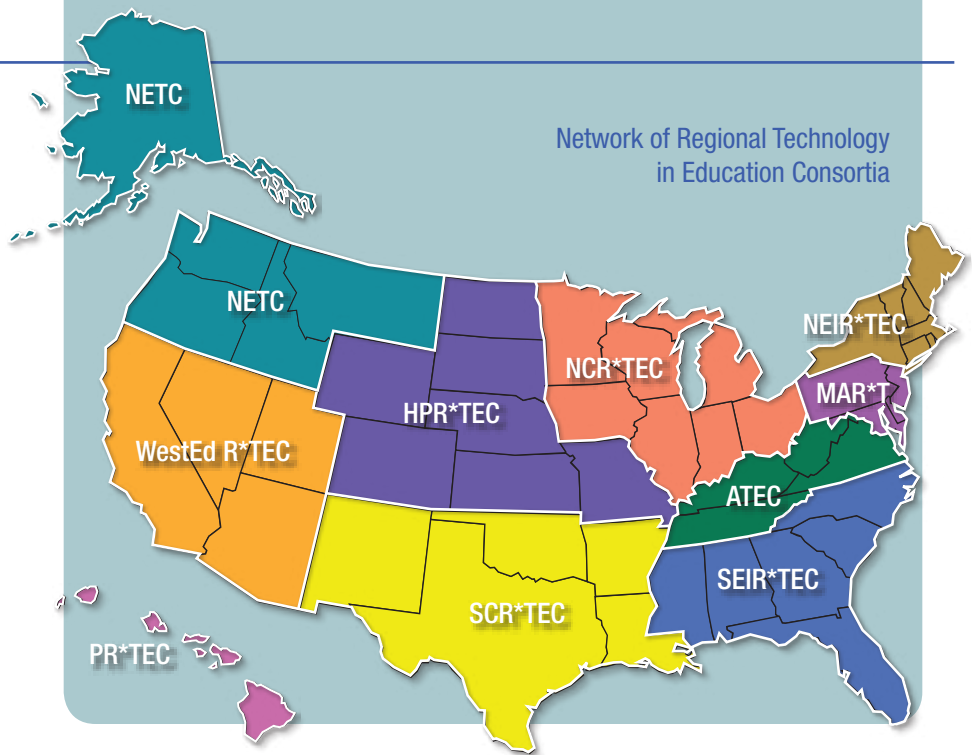
Center for Classroom Teaching and Learning Sponsored by Northwest Regional Educational Laboratory (NWREL), the center offers resources and services that help educators develop strong schools and successful students. The center is grounded in the belief that classroom teachers are the most critical element in a school's efforts to ensure that all students achieve the high academic standards needed to be productive citizens. <http://www.nwrel.org/cctl/>

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The Evolution of R*TEC

For 10 years, the U.S. Department of Education funded a nationwide initiative called the Regional Technology in Education Consortia (R*TEC). The R*TEC program was a grant program offered by the then-titled Office of Educational Research and Improvement. The program started in 1995 with the objective to help states, schools, districts, and other educational institutions implement advanced technologies to improve teaching and student achievement. The program was primarily concerned with identifying, providing, and promoting professional development, technical assistance, and resources to support technology integration within the K–12 classroom. The consortia included 10 different geographic regions. Each R*TEC was responsible for providing guidance and support to its respective states, but many of the resources developed were available at a national level as well. As a group, the R*TECs compiled a treasure trove of resources and materials supporting the instructional integration of technology.

With the 2005 budget year, monies previously allocated for this program were diverted to a larger Department of Education initiative known as the Comprehensive Centers, reflecting the



current administration's focus on No Child Left Behind legislation. The goals of the Regional Comprehensive Centers are to provide frontline assistance to states and to help increase state capacity to assist districts and schools in meeting their student achievement goals. Five content-focused centers were also established to provide expert assistance on key issues

related to NCLB goals. In addition to the Regional Technology in Education Consortia, the Comprehensive Centers under this program replaced the former Comprehensive Regional Assistance Centers, the Eisenhower National Clearinghouse for Mathematics and Science Education, and the Regional Mathematics and Science Education Consortia.

Original R*TEC	Resources Available	Contact Person
ALL	A summary of more than 200 resources developed by the R*TECs is available at http://www.rtec.org	Linda Merillat lindam@altec.org
ATEC	Archived Web site still available: http://www.the-atec.org/default_ie.asp Site maintained by the CNA Corporation (http://www.cna.org)	Corbin Fauntleroy fauntlej@cna.org
HPR*TEC	Resources available through ALTEC (http://www.altec.org)	Marilyn Ault mault@altec.org
MAR*TEC	Archived Web site still available: http://www.temple.edu/martec/ Site maintained by Temple University (http://www.temple.edu)	Judith Stull stullj@temple.edu
NCR*TEC	Web site no longer available. Some resources available through Learning Point Associates (http://www.learningpt.org)	Lisa Palacios lisa.palacios@learningpt.org
NEIR*TEC	Archived Web site still available: http://www.neirtec.org/ Site maintained by Education Development Center (EDC) (http://www.edc.org)	Jill Weber jweber@edc.org
NETC	Archived Web site still available: http://www.netc.org . Site maintained by Northwest Regional Educational Laboratory (NWREL) (http://www.nwrel.org)	Seymour Hanfling hanflins@nwrel.org
PR*TEC	Web site no longer available. Some resources available through Pacific Regional Educational Laboratory (PREL) (http://www.prel.org)	Jackie Burniske burniski@prel.org
SCR*TEC	Web site no longer available. Some resources available through Southwest Educational Development Laboratory (SEDL) (http://www.sedl.org)	Corporate Headquarters services@sedl.org
SEIR*TEC	Archived Web site still available: http://www.seirtec.org/ Site maintained by the SERVE Center (http://www.serve.org)	Nita Matzen nmatzen@serve.org
WestEd R*TEC	Archived Web site still available: http://rteceexchange.edgateway.net/cs/rtec/print/rtec_docs/59 Site maintained by WestEd(http://www.wested.org)	Kurt Larsen klarsen@wested.org



Mentoring for Effective Technology Integration

Mentoring or coaching is a powerful form of professional development for novice and veteran teachers alike. For the 2001–2002 school year, the New Jersey Department of Education selected a teacher from each county around the state to serve as a Tech Fellow and mentor teachers in effective technology integration. This Web site developed by the Mid-Atlantic Regional Technology in Education Consortium (MAR*TEC) provides interviews with the New Jersey Tech Fellows about their experiences as mentors. <http://www.temple.edu/martec/onlinetools/techmentors.html>



Pacific Voices

Developed in partnership with Pacific Resources for Education and Learning (PREL), the Pacific Voices Web site is a place for Pacific Island educators to explore strategies to integrate technology into island classrooms. The project celebrates the beauty and diversity of teachers, children, and families of the

Pacific by sharing cultural packages and thematic units that are supported and enhanced by educational technologies—including multimedia, video, and telecommunications. <http://www.prtec.hawaii.edu/default.htm>

Teacher's Technology Handbook

The Appalachian Technology in Education Consortium (ATEC) compiled their best resources in lesson plans, lesson ideas, and technology tips into one place. This handbook provides a useful resource for supporting effective technology integration. Other ATEC resources are being maintained by the CNA Corporation's Education Center. <http://www.the-atec.org/doc-Download.asp?docID=52>

Using Technology to Support Diverse Learners

The purpose of this Web site is to focus on how technology already in the classroom or school can support good instruction and research-based strategies that work. The focus is on differentiated instruction—a teaching theory based on the idea that instructional approaches should give students multiple options for taking in information, making sense of ideas, expressing what they learn, and accommodating differences while teaching to students' strengths and knowledge. <http://www.wested.org/tdl/>

Planning and Evaluation Resources

EdTech Leaders Online (ETLO)

ETLO is a capacity-building online program developed by the Northeast & Islands Regional Technology in Education Consortium (NEIR*TEC) for anybody associated with K–12 education. It's designed to enable them to provide effective online learning programs for teachers, administrators, and students. ETLO programs include graduate-level training courses for online instructors and course designers, and a catalog of online workshops focused on specific subject areas and grade levels. <http://www.edtechleaders.org>

enGauge: A Framework for Effective Technology Use

This site, originally developed by the North Central Regional Technology in Education Consortium (NCR*TEC), is designed to help districts and schools plan and evaluate the system-wide use of educational technology. Many of the resources developed by NCR*TEC are now provided for a fee through Learning Point Associates. <http://www.ncrel.org/engage/>

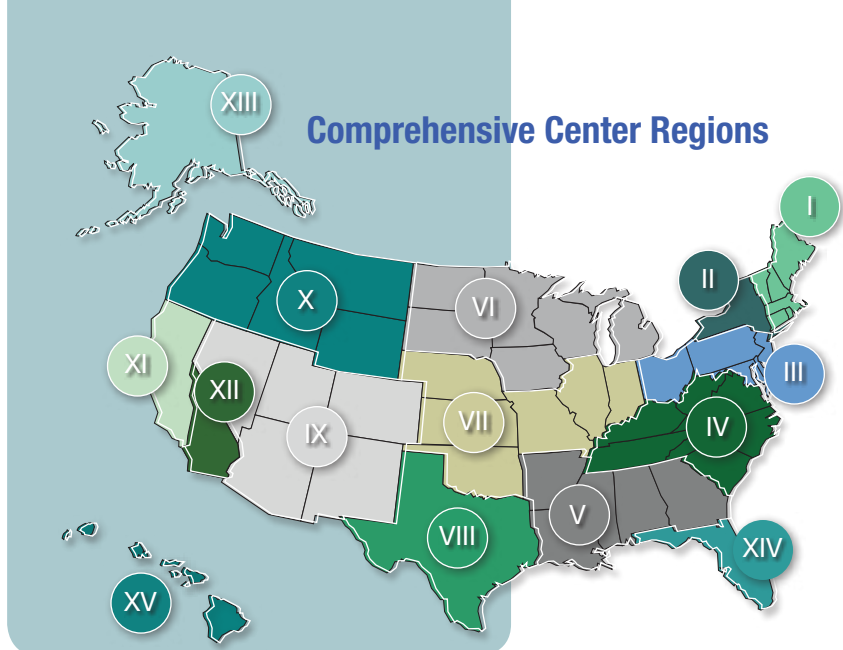


Schools Moving Up

This site, developed by WestEd, provides profiles of schools across the country that are finding ways to make the changes needed to improve student achievement. Detailed data and principal interviews that provide insight into each school's improvement process are included. <http://www.schoolsmovingup.net>

Studying Practices for Increasing Capacity in Evaluation (SPICE)

SPICE is a two-year project designed to study the challenges and solutions of scaling up an established evaluation capacity-building effort. That work, called Capacity to Apply Project Evaluation (CAPE), encompasses the professional development, follow-up technical assistance, and resources provided to teachers, administrators, and education specialists to expand their understanding of evaluation practice and organizational change. The substantive content of CAPE is built around the SEIR*TEC Formative Evaluation Framework, an evaluation-planning process with embedded resources, intended to guide teams of



Comprehensive Center Regions

educators through the conceptualization, design, and implementation of project-specific formative evaluations. http://www.seirtec.org/_evaluation/inst/worksheets.html

Conclusion

Judith Stull, a senior research associate at Temple University and an evaluator for MAR*TEC, observed “that the R*TECs succeeded so well was their downfall. To the policymakers, it appeared that technology knowledge and skills increased to such an extent that it appeared that the R*TECs were no longer needed. Unfortunately, technology is continuing to change and improve, and knowledge and skills soon become outdated. Who is going to make sure that educators are current?”

Dr. Tom Barlow, president and CEO of PREL, has responded by saying that in many ways “the work is continuing.” Organizations that managed the R*TEC program in their geographic area—and that are now managing the Comprehensive Center for the area—are finding that the focus has shifted from working directly with teachers to working with the state departments. They now train the trainers instead of directly training teachers at the school level. The work they have done in the past is being repurposed for the new program. The charter of the Comprehensive Centers is broader, and the

focus is capacity building. Technology is still a component of many efforts but it is not always the priority and it is not being addressed in the same way. The state technology directors are just one of many clients.

Marilyn Ault, director of ALTEC, stated that “the R*TECs were more than tool builders. They involved community, collaboration, and professional development. These activities, designed to support and promote the use of the resources, are no longer available—or diluted through the multiple focus of the comprehensive centers.” Jill Weber, former director of NEIR*TEC, related how the state education directors in her region came together over time and really bonded. They were finally able to start working together as a group to develop regional policy. Now, without the backing of the R*TEC program, it is difficult for the group to continue to meet and collaborate.

Responsibility for technology integration has shifted. With funding going to the states, state leadership will need to take a more aggressive role in ensuring that teachers have the needed skills. Districts will have to take a more active role in preparing teachers, assessing their competency in technology, and providing them with the professional development and resources they need. Finally, teachers will need to take a more active role in preparing themselves.

In summary, Seymour Hanfling of the Center for Classroom Teaching and Learning at NWREL commented that new technologies are always emerging, and we will need to change and adapt to meet those challenges. He suggests that in the next few years, more districts will become serious about implementing 1-to-1 computing solutions and will be evaluating them using online or electronic curriculum. As a discipline, he emphasizes that we will need to look at how things for teachers change when students have access to technology all the time. We will also need to look at how we can empower students and teachers to see new opportunities. He leaves us with these questions: “What are the issues we need to focus on when those changes come? How do you prepare? How do you prepare your teachers?”



Linda Merillat is pursuing a PhD in Education with an emphasis in Educational Technology and Interaction Design at the University of Kansas (KU). She is currently employed with the Advanced

Learning Technologies in Education Consortium (ALTEC) at KU, where she provides project management and leads the development on several Web-based initiatives for teachers and educators.



Jennifer Holvoet is an associate director of ALTEC. She received her Doctorate in Developmental Psychology and has a Master's in Special Education, with emphasis on serving students with the

most severe disabilities, both from KU. Previously, Holvoet served as a teacher and an administrator in both public and private schools in Kansas.



Doug Adams is an associate director of ALTEC, where he served as co-director of the High Plains R*TEC. A nationally recognized speaker and author, Adams has degrees in History, Educational Psychology, and Gifted Education from KU. His expertise lies in professional development, technology planning, and leadership.